

Claims

1. Configuration for the digital-analog conversion of a high-frequency digital input signal (DE) into a carrier-frequency analog output signal (AA),
 - 5 - in which a delay device (VZ) has at least one first delay element (VG1) and additional delay elements (VG2, ..., VGn) connected downstream from the first in a serially consecutive manner,
 - 10 - in which the digital input signal (DE) is connected to an input of the first delay element (VG1) and is connected to an input of a first D/A converter (W0),
 - in which the first delay element (VG1) is connected on the output side to an input of another D/A converter (W1) assigned thereto, and, optionally, each additional delay element (VG2, ..., VGn) is connected on the output side to an input of another D/A converter (W2, ..., Wn) assigned to the respective delay element (VG2, ..., VGn),
 - 15 - in which all D/A converters (W0, ..., Wn) are combined on the output side in a step-by-step manner so that output signals (AS0, ..., ASn) of all D/A converters (W0, ..., Wn) form the analog output signal (AA), and
 - in which a specific coefficient (k0, ..., kn) is assigned to each D/A converter (W0, ..., Wn) and a specific delay time (τ1, ..., τn) is assigned to each delay element (VG2, ..., VGn) for the purpose of realizing a filter characteristic,
2. Configuration according to Claim 1, in which an identical clock signal (CLK) is connected to each individual D/A converter (W0, ..., Wn).
- 30 3. Configuration according to Claim 2, in which the delay times (τ1, ..., τn) specifically assigned to the delay elements (VG1, ..., VGn) correspond to an entire clock period or to part of the clock

period of the clock signal (CLK).

4. Configuration according to one of the above claims, in which the specific coefficients (k_0, \dots, k_n) and the specific delay times (τ_1, \dots, τ_n) are selected such that a FIR filter characteristic is realized.

5. Configuration according to one of the above claims, in which the delay elements (VG_1, \dots, VG_n) are configured as D latches timed 10 with the clock signal (CLK).

15 6. Configuration according to one of the above claims, in which the D/A converters (W_0, \dots, W_n) are configured as 1-bit D/A converters.

7. Configuration according to one of the above claims, in which the D/A converters (W_0, \dots, W_n) are combined on the output side by means of adding devices (AE_1, \dots, AE_n).

20 8. Configuration according to one of the above claims, in which the delay times (τ_1, \dots, τ_n) assigned to the delay elements (VG_1, \dots, VG_n) are identical.

25 9. Configuration according to one of the above claims, in which the output signals (AS_0, \dots, AS_n) of the D/A converters (W_0, \dots, W_n) each have a multiple pulse sequence in order to improve the filter function.

30 10. Configuration according to one of the above claims, in which the digital input signal (DE) is broadband.